

52.145, 52.147, 52.151, 52.153, 52.155, 52.156, 52.157, 52.158, 52.159, 52.161, 52.163, 52.165, 52.167, 52.171, 52.173, 52.175, 52.177, 52.179, 52.181, 52.301, and 52.303.

APPENDIX A TO PART 52—DESIGN CERTIFICATION RULE FOR THE U.S. ADVANCED BOILING WATER REACTOR

I. INTRODUCTION

A. Appendix A constitutes the standard design certification for the U.S. Advanced Boiling Water Reactor (U.S. ABWR) design, in accordance with 10 CFR part 52, subpart B. The applicant for the original certification of the U.S. ABWR design was GE Nuclear Energy (GE).

B. The applicant for the amendment to the U.S. ABWR design to address the requirements in 10 CFR 50.150, “Aircraft impact assessment,” (AIA rule) is the STP Nuclear Operating Company (STPNOC).

II. DEFINITIONS

A. *Generic design control document (generic DCD)* means either or both of the documents containing the Tier 1 and Tier 2 information and generic technical specifications that are incorporated by reference into this appendix.

B. *Generic technical specifications* means the information, required by 10 CFR 50.36 and 50.36a, for the portion of the plant that is within the scope of this appendix.

C. *Plant-specific DCD* means the document, maintained by an applicant or licensee who references this appendix, consisting of the information in the generic DCD, as modified and supplemented by the plant-specific departures and exemptions made under Section VIII of this appendix.

D. *Tier 1* means the portion of the design-related information contained in the generic DCD that is approved and certified by this appendix (hereinafter Tier 1 information). The design descriptions, interface requirements, and site parameters are derived from Tier 2 information. Tier 1 information includes:

1. Definitions and general provisions;
2. Design descriptions;
3. Inspections, tests, analyses, and acceptance criteria (ITAAC);
4. Significant site parameters; and
5. Significant interface requirements.

E. *Tier 2* means the portion of the design-related information contained in the generic DCD that is approved but not certified by this appendix (Tier 2 information). Compliance with Tier 2 is required, but generic changes to and plant-specific departures from Tier 2 are governed by Section VIII of this appendix. Compliance with Tier 2 provides a sufficient, but not the only acceptable, method for complying with Tier 1. Compliance methods differing from Tier 2 must satisfy the change process in Section

VIII of this appendix. Regardless of these differences, an applicant or licensee must meet the requirement in Section III.B of this appendix to reference Tier 2 when referencing Tier 1. Tier 2 information includes:

1. Information required by §§52.47(a) and 52.47(c), with the exception of generic technical specifications and conceptual design information;

2. Supporting information on the inspections, tests, and analyses that will be performed to demonstrate that the acceptance criteria in the ITAAC have been met; and

3. Combined license (COL) action items (COL license information), which identify certain matters that must be addressed in the site-specific portion of the final safety analysis report (FSAR) by an applicant who references this appendix. These items constitute information requirements but are not the only acceptable set of information in the FSAR. An applicant may depart from or omit these items, provided that the departure or omission is identified and justified in the FSAR. After issuance of a construction permit or COL, these items are not requirements for the licensee unless such items are restated in the FSAR.

F. *Tier 2** means the portion of the Tier 2 information, designated as such in the generic DCD, which is subject to the change process in Section VIII.B.6 of this appendix. This designation expires for some Tier 2* information under Section VIII.B.6.

G. *Departure from a method of evaluation* described in the plant-specific DCD used in establishing the design bases or in the safety analyses means:

(1) Changing any of the elements of the method described in the plant-specific DCD unless the results of the analysis are conservative or essentially the same; or

(2) Changing from a method described in the plant-specific DCD to another method unless that method has been approved by NRC for the intended application.

H. All other terms in this appendix have the meaning set out in 10 CFR 50.2 or 52.1, or Section 11 of the Atomic Energy Act of 1954, as amended, as applicable.

III. SCOPE AND CONTENTS

A. *Design Control Documents*

1. *Incorporation by reference approval.* Certain documents identified in paragraphs III.A.2 and III.A.3 of this section are approved for incorporation by reference into this appendix by the Director of the Office of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Documents approved for incorporation by reference and created or received at the NRC are available online in the NRC Library at <http://www.nrc.gov/reading-rm/adams.html>. From this page, the public can gain entry into ADAMS, which provides text and image files

of the NRC's public documents. If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, then contact the NRC's Public Document Room (PDR) reference staff at (800) 397-4209, (301) 415-3747, or by email at PDR.Resource@nrc.gov. A copy of these DCDs approved for incorporation by reference are available for examination and copying at the NRC's PDR located at Room O-1F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. Copies are also available for examination at the NRC Library located at Two White Flint North, 11545 Rockville Pike, Rockville, Maryland 20852, telephone: (301) 415-5610, email: Library.Resource@nrc.gov. All approved material is available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030 or go to <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

2. *GE DCD*: All Tier 1, Tier 2, and the generic technical specifications in the GE Nuclear Energy (GE) "ABWR Design Control Document, Revision 4, March 1997" (GE DCD). You may obtain copies of the GE DCD from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161, (703) 605-6515. To view the GE DCD in ADAMS, search under ADAMS Accession No. ML11126A129. The GE DCD can also be viewed at the Federal Rulemaking Web site, <http://www.regulations.gov>, by searching for documents filed under Docket ID NRC-2010-0134.

3. *STPNOC DCD*: All Tier 1 and Tier 2 information in the STP Nuclear Operating Company "Design Control Document ABWR STP Aircraft Impact Assessment Amendment Revision 3, Copyright @ 2010" (STPNOC DCD). You may obtain copies of the STPNOC DCD from the Regulatory Affairs Manager for STP Units 3 and 4, STP Nuclear Operating Company, P.O. Box 289, Wadsworth, Texas 77483, telephone: (361) 972-8440. To view the STPNOC DCD in ADAMS, search under ADAMS Accession No. ML102870017. The STPNOC DCD can also be viewed at the Federal Rulemaking Web site, <http://www.regulations.gov>, by searching for documents filed under Docket ID NRC-2010-0134.

B.1. An applicant or licensee referencing this appendix, in accordance with section IV of this appendix, shall incorporate by reference and comply with the requirements of this appendix, including Tier 1, Tier 2, and the generic technical specifications except as otherwise provided in this appendix. An applicant or licensee referencing this appendix may reference either the GE DCD, or both the GE DCD and the STPNOC DCD. An applicant referencing this appendix shall indicate in its application and in all necessary supporting documentation whether it is imple-

menting the GE DCD, or both the GE DCD and the STPNOC DCD.

2. Conceptual design information, as set forth in the generic DCD, and the "Technical Support Document for the ABWR" are not part of this appendix. Tier 2 references to the probabilistic risk assessment (PRA) in the ABWR standard safety analysis report do not incorporate the PRA into Tier 2.

C. If there is a conflict between Tier 1 and Tier 2 of a DCD, then Tier 1 controls.

D. If there is a conflict between the generic DCD and the application for design certification of the U.S. ABWR design, NUREG-1503, "Final Safety Evaluation Report related to the Certification of the Advanced Boiling Water Reactor Design" (ABWR FSER), and Supplement No. 1, or NUREG-1948 "Safety Evaluation Report—The STP Nuclear Operating Company Amendment to the Advanced Boiling Water Reactor (ABWR) Design Certification" (AIA FSER), then the generic DCD controls.

E. Design activities for structures, systems, and components that are wholly outside the scope of this appendix may be performed using site characteristics, provided the design activities do not affect the DCD or conflict with the interface requirements.

IV. ADDITIONAL REQUIREMENTS AND RESTRICTIONS

A. An applicant for a combined license that wishes to reference this appendix shall, in addition to complying with the requirements of 10 CFR 52.77, 52.79, and 52.80, comply with the following requirements:

1. Incorporate by reference, as part of its application, this appendix;

2. Include, as part of its application:

a. A plant-specific DCD containing the same type of information and using the same organization and numbering as the generic DCD for the U.S. ABWR design, as modified and supplemented by the applicant's exemptions and departures;

b. The reports on departures from and updates to the plant-specific DCD required by paragraph X.B of this appendix;

c. Plant-specific technical specifications, consisting of the generic and site-specific technical specifications, that are required by 10 CFR 50.36 and 50.36a;

d. Information demonstrating compliance with the site parameters and interface requirements;

e. Information that addresses the COL action items; and

f. Information required by 10 CFR 52.47 that is not within the scope of this appendix.

3. Include, in the plant-specific DCD, the sensitive unclassified non-safeguards information (including proprietary information) and safeguards information referenced in the GE DCD and the STPNOC DCD, as applicable.

4.a. Include, as part of its application, a demonstration that an entity other than GE Nuclear Energy is qualified to supply the U.S. ABWR-certified design unless GE Nuclear Energy supplies the design for the applicant's use.

b. For an applicant referencing the STPNOC-certified design option, include, as part of its application, a demonstration that an entity other than the STPNOC and Toshiba America Nuclear Energy (TANE) acting together is qualified to supply the STPNOC-certified design option, unless the STPNOC and TANE acting together supply the design option for the applicant's use.

B. The Commission reserves the right to determine in what manner this appendix may be referenced by an applicant for a construction permit or operating license under 10 CFR part 50.

V. APPLICABLE REGULATIONS

A.1. Except as indicated in paragraph B of this section, the regulations that apply to the U.S. ABWR design as contained in the GE DCD are in 10 CFR parts 20, 50, 73, and 100, codified as of May 2, 1997, that are applicable and technically relevant, as described in the FSER (NUREG-1503) and Supplement No. 1.

2. Except as indicated in paragraph B of this section, the regulations that apply to the U.S. ABWR design as contained in the STPNOC DCD are those described in paragraph A.1 of this section and 10 CFR 50.150, codified as of December 7, 2011, as described in the FSER on the STPNOC amendment addressing the AIA rule (NUREG-1948).

B. The U.S. ABWR design is exempt from portions of the following regulations:

1. Paragraph (f)(2)(iv) of 10 CFR 50.34—Separate Plant Safety Parameter Display Console;

2. Paragraph (f)(2)(viii) of 10 CFR 50.34—Post-Accident Sampling for Boron, Chloride, and Dissolved Gases; and

3. Paragraph (f)(3)(iv) of 10 CFR 50.34—Dedicated Containment Penetration.

VI. ISSUE RESOLUTION

A.1. *GE DCD*. The Commission has determined that the structures, systems, components, and design features of the U.S. ABWR design, as contained in the GE DCD, comply with the provisions of the Atomic Energy Act of 1954, as amended, and the applicable regulations identified in section V.A.1 of this appendix; and, therefore, provide adequate protection to the health and safety of the public. A conclusion that a matter is resolved includes the finding that additional or alternative structures, systems, components, design features, design criteria, testing, analyses, acceptance criteria, or justifications are not necessary for the U.S. ABWR design. This conclusion does not include a

finding with respect to compliance with the requirements of 10 CFR 50.150.

2. *STPNOC DCD*. The Commission has determined that the structures, systems, components, and design features of the STPNOC amendment to the U.S. ABWR design, as contained in the STPNOC DCD, comply with the provisions of the Atomic Energy Act of 1954, as amended, and the applicable regulations identified in section V.A.2 of this appendix, including 10 CFR 50.150; and, therefore, provide enhanced protection to the health and safety of the public afforded by compliance with 10 CFR 50.150. A conclusion that a matter is resolved includes the finding that additional or alternative structures, systems, components, design features, design criteria, testing, analyses, acceptance criteria, or justifications to meet the requirements of 10 CFR 50.150 are not necessary for the STPNOC amendment to the U.S. ABWR design.

3. *GE and STPNOC DCD referenced together*. The Commission has determined that the structures, systems, components, and design features of the U.S. ABWR, as contained in both the GE DCD and the STPNOC DCD, when referenced together, comply with the provisions of the Atomic Energy Act of 1954, as amended, and the applicable regulations identified in section V.A. of this appendix; and, therefore, provide adequate protection to the health and safety of the public. A conclusion that a matter is resolved includes the finding that additional or alternative structures, systems, components, design features, design criteria, testing, analyses, acceptance criteria, or justifications are not necessary for the U.S. ABWR design, when the GE DCD and the STPNOC DCD are referenced together.

B. The Commission considers the following matters resolved within the meaning of 10 CFR 52.63(a)(5) in subsequent proceedings for issuance of a combined license, amendment of a combined license, or renewal of a combined license, proceedings held under 10 CFR 52.103, and enforcement proceedings involving plants referencing this appendix:

1. All nuclear safety issues, except for the generic technical specifications and other operational requirements, associated with the information in the ABWR FSER and Supplement No. 1, Tier 1, Tier 2 (including referenced information which the context indicates is intended as requirements), and the rulemaking record for the original certification of the U.S. ABWR design and all nuclear safety issues, except for operational requirements, associated with the information in the AIA FSER, Tier 1, Tier 2 (including referenced information which the context indicates is intended as requirements), and the rulemaking record for certification of the AIA amendment to the U.S. ABWR design;

2. All nuclear safety and safeguards issues associated with the referenced sensitive unclassified non-safeguards information (including proprietary information) and safeguards information which, in context, are intended as requirements in the GE DCD and the STPNOC DCD;

3. All generic changes to the DCD under and in compliance with the change processes in sections VIII.A.1 and VIII.B.1 of this appendix;

4. All exemptions from the DCD under and in compliance with the change processes in sections VIII.A.4 and VIII.B.4 of this appendix, but only for that plant;

5. All departures from the DCD that are approved by license amendment, but only for that plant;

6. Except as provided in paragraph VIII.B.5.g of this appendix, all departures from Tier 2 pursuant to and in compliance with the change processes in paragraph VIII.B.5 of this appendix that do not require prior NRC approval, but only for that plant;

7. All environmental issues concerning severe accident mitigation design alternatives associated with the information in the NRC's final environmental assessment for the U.S. ABWR design and Revision 1 of the technical support document for the U.S. ABWR, dated December 1994, and for the NRC's final environmental assessment and Revision 0 of ABWR-LIC-09-621, "Applicant's Supplemental Environmental Report-Amendment to ABWR Standard Design Certification," for the AIA amendment to the U.S. ABWR design for plants referencing this appendix whose site parameters are within those specified in the technical support document.

C. The Commission does not consider operational requirements for an applicant or licensee who references this appendix to be matters resolved within the meaning of 10 CFR 52.63(a)(5). The Commission reserves the right to require operational requirements for an applicant or licensee who references this appendix by rule, regulation, order, or license condition.

D. Except in accordance with the change processes in Section VIII of this appendix, the Commission may not require an applicant or licensee who references this appendix to:

1. Modify structures, systems, components, or design features as described in the generic DCD;

2. Provide additional or alternative structures, systems, components, or design features not discussed in the generic DCD; or

3. Provide additional or alternative design criteria, testing, analyses, acceptance criteria, or justification for structures, systems, components, or design features discussed in the generic DCD.

E. The NRC will specify at an appropriate time the procedures to be used by an interested person who wishes to review portions

of the design certification or references containing safeguards information or sensitive unclassified non-safeguards information (including proprietary information, such as trade secrets and commercial or financial information obtained from a person that are privileged or confidential (10 CFR 2.390 and 10 CFR part 9)), for the purpose of participating in the hearing required by 10 CFR 52.85, the hearing provided under 10 CFR 52.103, or in any other proceeding relating to this appendix in which interested persons have a right to request an adjudicatory hearing.

VII. DURATION OF THIS APPENDIX

This appendix may be referenced for a period of 15 years from June 11, 1997, except as provided for in 10 CFR 52.55(b) and 52.57(b). This appendix remains valid for an applicant or licensee who references this appendix until the application is withdrawn or the license expires, including any period of extended operation under a renewed license.

VIII. PROCESSES FOR CHANGES AND DEPARTURES

A. Tier 1 information.

1. Generic changes to Tier 1 information are governed by the requirements in 10 CFR 52.63(a)(1).

2. Generic changes to Tier 1 information are applicable to all applicants or licensees who reference this appendix, except those for which the change has been rendered technically irrelevant by action taken under paragraphs A.3 or A.4 of this section.

3. Departures from Tier 1 information that are required by the Commission through plant-specific orders are governed by the requirements in 10 CFR 52.63(a)(4).

4. Exemptions from Tier 1 information are governed by the requirements in 10 CFR 52.63(b)(1) and 52.98(f). The Commission will deny a request for an exemption from Tier 1, if it finds that the design change will result in a significant decrease in the level of safety otherwise provided by the design.

B. Tier 2 information.

1. Generic changes to Tier 2 information are governed by the requirements in 10 CFR 52.63(a)(1).

2. Generic changes to Tier 2 information are applicable to all applicants or licensees who reference this appendix, except those for which the change has been rendered technically irrelevant by action taken under paragraphs B.3, B.4, B.5, or B.6 of this section.

3. The Commission may not require new requirements on Tier 2 information by plant-specific order while this appendix is in effect under §§ 52.55 or 52.61, unless:

a. A modification is necessary to secure compliance with the Commission's regulations applicable and in effect at the time

this appendix was approved, as set forth in Section V of this appendix, or to assure adequate protection of the public health and safety or the common defense and security; and

b. Special circumstances as defined in 10 CFR 52.7 are present.

4. An applicant or licensee who references this appendix may request an exemption from Tier 2 information. The Commission may grant such a request only if it determines that the exemption will comply with the requirements of 10 CFR 52.7. The Commission will deny a request for an exemption from Tier 2, if it finds that the design change will result in a significant decrease in the level of safety otherwise provided by the design. The grant of an exemption to an applicant must be subject to litigation in the same manner as other issues material to the license hearing. The grant of an exemption to a licensee must be subject to an opportunity for a hearing in the same manner as license amendments.

5.a. An applicant or licensee who references this appendix may depart from Tier 2 information, without prior NRC approval, unless the proposed departure involves a change to or departure from Tier 1 information, Tier 2* information, or the technical specifications, or requires a license amendment under paragraphs B.5.b or B.5.c of this section. When evaluating the proposed departure, an applicant or licensee shall consider all matters described in the plant-specific DCD.

b. A proposed departure from Tier 2, other than one affecting resolution of a severe accident issue identified in the plant-specific DCD or one affecting information required by 10 CFR 52.47(a)(28) to address 10 CFR 50.150, requires a license amendment if it would:

- (1) Result in more than a minimal increase in the frequency of occurrence of an accident previously evaluated in the plant-specific DCD;
- (2) Result in more than a minimal increase in the likelihood of occurrence of a malfunction of a structure, system, or component (SSC) important to safety previously evaluated in the plant-specific DCD;
- (3) Result in more than a minimal increase in the consequences of an accident previously evaluated in the plant-specific DCD;
- (4) Result in more than a minimal increase in the consequences of a malfunction of a SSC important to safety previously evaluated in the plant-specific DCD;
- (5) Create a possibility for an accident of a different type than any evaluated previously in the plant-specific DCD;
- (6) Create a possibility for a malfunction of an SSC important to safety with a different result than any evaluated previously in the plant-specific DCD;

(7) Result in a design basis limit for a fission product barrier as described in the plant-specific DCD being exceeded or altered; or

(8) Result in a departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses.

c. A proposed departure from Tier 2 affecting resolution of an ex-vessel severe accident design feature identified in the plant-specific DCD, requires a license amendment if:

(1) There is a substantial increase in the probability of an ex-vessel severe accident such that a particular ex-vessel severe accident previously reviewed and determined to be not credible could become credible; or

(2) There is a substantial increase in the consequences to the public of a particular ex-vessel severe accident previously reviewed.

d. If an applicant or licensee proposes to depart from the information required by 10 CFR 52.47(a)(28) to be included in the FSAR for the standard design certification, then the applicant or licensee shall consider the effect of the changed feature or capability on the original assessment required by 10 CFR 50.150(a). The applicant or licensee must also document how the modified design features and functional capabilities continue to meet the assessment requirements in 10 CFR 50.150(a)(1) in accordance with section X of this appendix.

e. If a departure requires a license amendment pursuant to paragraphs B.5.b or B.5.c of this section, it is governed by 10 CFR 50.90.

f. A departure from Tier 2 information that is made under paragraph B.5 of this section does not require an exemption from this appendix.

g. A party to an adjudicatory proceeding for either the issuance, amendment, or renewal of a license or for operation under 10 CFR 52.103(a), who believes that an applicant or licensee who references this appendix has not complied with paragraph VIII.B.5 of this appendix when departing from Tier 2 information, may petition the NRC to admit into the proceeding such a contention. In addition to compliance with the general requirements of 10 CFR 2.309, the petition must demonstrate that the departure does not comply with paragraph VIII.B.5 of this appendix. Further, the petition must demonstrate that the change bears on an asserted noncompliance with an ITAAC acceptance criterion in the case of a 10 CFR 52.103 preoperational hearing, or that the change bears directly on the amendment request in the case of a hearing on a license amendment. Any other party may file a response. If, on the basis of the petition and any response, the presiding officer determines that a sufficient showing has been made, the presiding officer shall certify the matter directly to the Commission for determination of the admissibility of the contention. The

Commission may admit such a contention if it determines the petition raises a genuine issue of material fact regarding compliance with paragraph VIII.B.5 of this appendix.

6.a. An applicant who references this appendix may not depart from Tier 2* information, which is designated with italicized text or brackets and an asterisk in the generic DCD, without NRC approval. The departure will not be considered a resolved issue, within the meaning of Section VI of this appendix and 10 CFR 52.63(a)(5).

b. A licensee who references this appendix may not depart from the following Tier 2* matters without prior NRC approval. A request for a departure will be treated as a request for a license amendment under 10 CFR 50.90.

(1) Fuel burnup limit (4.2).

(2) Fuel design evaluation (4.2.3).

(3) Fuel licensing acceptance criteria (appendix 4B).

c. A licensee who references this appendix may not, before the plant first achieves full power following the finding required by 10 CFR 52.103(g), depart from the following Tier 2* matters except in accordance with paragraph B.6.b of this section. After the plant first achieves full power, the following Tier 2* matters revert to Tier 2 status and are thereafter subject to the departure provisions in paragraph B.5 of this section.

(1) ASME Boiler & Pressure Vessel Code, Section III.

(2) ACI 349 and ANSI/AISC-690.

(3) Motor-operated valves.

(4) Equipment seismic qualification methods.

(5) Piping design acceptance criteria.

(6) Fuel system and assembly design (4.2), except burnup limit.

(7) Nuclear design (4.3).

(8) Equilibrium cycle and control rod patterns (App. 4A).

(9) Control rod licensing acceptance criteria (App. 4C).

(10) Instrument setpoint methodology.

(11) EMS performance specifications and architecture.

(12) SSLC hardware and software qualification.

(13) Self-test system design testing features and commitments.

(14) Human factors engineering design and implementation process.

d. Departures from Tier 2* information that are made under paragraph B.6 of this section do not require an exemption from this appendix.

C. Operational requirements.

1. Generic changes to generic technical specifications and other operational requirements that were completely reviewed and approved in the design certification rule-making and do not require a change to a design feature in the generic DCD are governed by the requirements in 10 CFR 50.109. Ge-

neric changes that do require a change to a design feature in the generic DCD are governed by the requirements in paragraphs A or B of this section.

2. Generic changes to generic TS and other operational requirements are applicable to all applicants who reference this appendix, except those for which the change has been rendered technically irrelevant by action taken under paragraphs C.3 or C.4 of this section.

3. The Commission may require plant-specific departures on generic technical specifications and other operational requirements that were completely reviewed and approved, provided a change to a design feature in the generic DCD is not required and special circumstances as defined in 10 CFR 2.335 are present. The Commission may modify or supplement generic technical specifications and other operational requirements that were not completely reviewed and approved or require additional technical specifications and other operational requirements on a plant-specific basis, provided a change to a design feature in the generic DCD is not required.

4. An applicant who references this appendix may request an exemption from the generic technical specifications or other operational requirements. The Commission may grant such a request only if it determines that the exemption will comply with the requirements of 10 CFR 52.7. The grant of an exemption must be subject to litigation in the same manner as other issues material to the license hearing.

5. A party to an adjudicatory proceeding for either the issuance, amendment, or renewal of a license or for operation under 10 CFR 52.103(a), who believes that an operational requirement approved in the DCD or a technical specification derived from the generic technical specifications must be changed may petition to admit into the proceeding such a contention. Such petition must comply with the general requirements of 10 CFR 2.309 and must demonstrate why special circumstances as defined in 10 CFR 2.335 are present, or for compliance with the Commission's regulations in effect at the time this appendix was approved, as set forth in Section V of this appendix. Any other party may file a response thereto. If, on the basis of the petition and any response, the presiding officer determines that a sufficient showing has been made, the presiding officer shall certify the matter directly to the Commission for determination of the admissibility of the contention. All other issues with respect to the plant-specific technical specifications or other operational requirements are subject to a hearing as part of the license proceeding.

6. After issuance of a license, the generic technical specifications have no further effect on the plant-specific technical specifications and changes to the plant-specific technical specifications will be treated as license amendments under 10 CFR 50.90.

IX. INSPECTIONS, TESTS, ANALYSES, AND ACCEPTANCE CRITERIA (ITAAC)

A.1. An applicant or licensee who references this appendix shall perform and demonstrate conformance with the ITAAC before fuel load. With respect to activities subject to an ITAAC, an applicant for a license may proceed at its own risk with design and procurement activities, and a licensee may proceed at its own risk with design, procurement, construction, and preoperational activities, even though the NRC may not have found that any particular ITAAC has been met.

2. The licensee who references this appendix shall notify the NRC that the required inspections, tests, and analyses in the ITAAC have been successfully completed and that the corresponding acceptance criteria have been met.

3. In the event that an activity is subject to an ITAAC, and the applicant or licensee who references this appendix has not demonstrated that the ITAAC has been met, the applicant or licensee may either take corrective actions to successfully complete that ITAAC, request an exemption from the ITAAC in accordance with Section VIII of this appendix and 10 CFR 52.97(b), or petition for rulemaking to amend this appendix by changing the requirements of the ITAAC, under 10 CFR 2.802 and 52.97(b). Such rule-making changes to the ITAAC must meet the requirements of paragraph VIII.A.1 of this appendix.

B.1. The NRC shall ensure that the required inspections, tests, and analyses in the ITAAC are performed. The NRC shall verify that the inspections, tests, and analyses referenced by the licensee have been successfully completed and, based solely thereon, find the prescribed acceptance criteria have been met. At appropriate intervals during construction, the NRC shall publish notices of the successful completion of ITAAC in the FEDERAL REGISTER.

2. In accordance with 10 CFR 52.103(g), the Commission shall find that the acceptance criteria in the ITAAC for the license are met before fuel load.

3. After the Commission has made the finding required by 10 CFR 52.103(g), the ITAAC do not, by virtue of their inclusion within the DCD, constitute regulatory requirements either for licensees or for renewal of the license; except for specific ITAAC, which are the subject of a §52.103(a) hearing, their expiration will occur upon final Commission action in such proceeding. However, subsequent modifications must comply with the

Tier 1 and Tier 2 design descriptions in the plant-specific DCD unless the licensee has complied with the applicable requirements of 10 CFR 52.98 and Section VIII of this appendix.

X. RECORDS AND REPORTING

A. Records.

1. The applicants for this appendix shall maintain a copy of the applicable generic DCD that includes all generic changes to Tier 1, Tier 2, and the generic technical specifications and other operational requirements. The applicants shall maintain the sensitive unclassified non-safeguards information (including proprietary information) and safeguards information referenced in the applicable generic DCD for the period that this appendix may be referenced, as specified in Section VII of this appendix.

2. An applicant or licensee who references this appendix shall maintain the plant-specific DCD to accurately reflect both generic changes to the generic DCD and plant-specific departures made under Section VIII of this appendix throughout the period of application and for the term of the license (including any period of renewal).

3. An applicant or licensee who references this appendix shall prepare and maintain written evaluations which provide the bases for the determinations required by Section VIII of this appendix. These evaluations must be retained throughout the period of application and for the term of the license (including any period of renewal).

4.a. The applicant for the amendment to the U.S. ABWR design to address the requirements in 10 CFR 50.150, "Aircraft impact assessment," shall maintain a copy of the aircraft impact assessment performed to comply with the requirements of 10 CFR 50.150(a) for the term of the certification (including any period of renewal).

b. An applicant or licensee who references this appendix to include both the GE DCD and the STPNOC DCD shall maintain a copy of the aircraft impact assessment performed to comply with the requirements of 10 CFR 50.150(a) throughout the pendency of the application and for the term of the license (including any period of renewal).

B. Reporting.

1. An applicant or licensee who references this appendix shall submit a report to the NRC containing a brief description of any plant-specific departures from the DCD, including a summary of the evaluation of each. This report must be filed in accordance with the filing requirements applicable to reports in 10 CFR 52.3.

2. An applicant or licensee who references this appendix shall submit updates to its DCD, which reflect the generic changes and the plant-specific departures from the generic DCD made under Section VIII of this appendix. These updates must be filed under

the filing requirements applicable to final safety analysis report updates in 10 CFR 52.3 and 50.71(e).

3. The reports and updates required by paragraphs X.B.1 and X.B.2 must be submitted as follows:

a. On the date that an application for a license referencing this appendix is submitted, the application must include the report and any updates to the generic DCD.

b. During the interval from the date of application for a license to the date the Commission makes the finding required by 10 CFR 52.103(g), the report must be submitted semiannually. Updates to the plant-specific DCD must be submitted annually and may be submitted along with amendments to the application.

c. After the Commission makes the finding required by 10 CFR 52.103(g), reports and updates to the plant-specific DCD must be submitted, along with updates to the site-specific portion of the final safety analysis report for the facility, at the intervals required by 10 CFR 50.59(d)(2) and 10 CFR 50.71(e)(4), respectively, or at shorter intervals as specified in the license.

[72 FR 49517, Aug. 28, 2007, as amended at 76 FR 72085, Nov. 22, 2011; 76 FR 78119, Dec. 16, 2011]

APPENDIX B TO PART 52—DESIGN CERTIFICATION RULE FOR THE SYSTEM 80+ DESIGN

I. INTRODUCTION

Appendix B constitutes design certification for the System 80+¹ standard plant design, in accordance with 10 CFR part 52, subpart B. The applicant for certification of the System 80+ design was Combustion Engineering, Inc. (ABB-CE), which is now Westinghouse Electric Company LLC.

II. DEFINITIONS

A. Generic design control document (generic DCD) means the document containing the Tier 1 and Tier 2 information and generic technical specifications that is incorporated by reference into this appendix.

B. Generic technical specifications means the information, required by 10 CFR 50.36 and 50.36a, for the portion of the plant that is within the scope of this appendix.

C. Plant-specific DCD means the document, maintained by an applicant or licensee who references this appendix, consisting of the information in the generic DCD, as modified and supplemented by the plant-specific departures and exemptions made under Section VIII of this appendix.

D. *Tier 1* means the portion of the design-related information contained in the generic DCD that is approved and certified by this appendix (hereinafter Tier 1 information). The design descriptions, interface requirements, and site parameters are derived from Tier 2 information. Tier 1 information includes:

1. Definitions and general provisions;
2. Design descriptions;
3. Inspections, tests, analyses, and acceptance criteria (ITAAC);
4. Significant site parameters; and
5. Significant interface requirements.

E. *Tier 2* means the portion of the design-related information contained in the generic DCD that is approved but not certified by this appendix (Tier 2 information). Compliance with Tier 2 is required, but generic changes to and plant-specific departures from Tier 2 are governed by Section VIII of this appendix. Compliance with Tier 2 provides a sufficient, but not the only acceptable, method for complying with Tier 1. Compliance methods differing from Tier 2 must satisfy the change process in Section VIII of this appendix. Regardless of these differences, an applicant or licensee must meet the requirement in Section III.B of this appendix to reference Tier 2 when referencing Tier 1. Tier 2 information includes:

1. Information required by §§52.47(a) and 52.47(c), with the exception of generic technical specifications and conceptual design information;
2. Supporting information on the inspections, tests, and analyses that will be performed to demonstrate that the acceptance criteria in the ITAAC have been met; and
3. Combined license (COL) action items (COL license information), which identify certain matters that must be addressed in the site-specific portion of the final safety analysis report (FSAR) by an applicant who references this appendix. These items constitute information requirements but are not the only acceptable set of information in the FSAR. An applicant may depart from or omit these items, provided that the departure or omission is identified and justified in the FSAR. After issuance of a construction permit or COL, these items are not requirements for the licensee unless such items are restated in the FSAR.

F. *Tier 2** means the portion of the Tier 2 information, designated as such in the generic DCD, which is subject to the change process in Section VIII.B.6 of this appendix. This designation expires for some Tier 2* information under Section VIII.B.6 of this appendix.

G. Departure from a method of evaluation described in the plant-specific DCD used in establishing the design bases or in the safety analyses means:

- (1) Changing any of the elements of the method described in the plant-specific DCD

¹“System 80+” is a trademark of Westinghouse Electric Company LLC.